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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/967,274 | 09/27/2001 | Joseph B. Richey II | 12873/04169 | 6800 |
| 24024 | 7590 | 07/27/2004 | EXAMINER | |
| CALFEE HALTER & GRISWOLD, LLP | | | EREZO, DARWIN P | |
| 800 SUPERIOR AVENUE | | | ART UNIT | |
| SUITE 1400 | | | PAPER NUMBER | |
| CLEVELAND, OH 44114 | | | 3731 | |

DATE MAILED: 07/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/967,274

Applicant(s)

RICHEY, JOSEPH B.

Examiner

Darwin P. Erez

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 April 2004.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☒ Claim(s) 1-21 is/are allowed.
6) ☒ Claim(s) 22-28 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 4/1/04.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 22, 23 and 25-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 5,094,235 to Westenskow et al. in view of US 5,044,362 to Younes and in further view of US 5,193,544 to Jaffe.

3. As to claims 22 and 23, Westenskow teaches a system for administering a breathing gas to a patient breathing interface comprising: a ventilator **101** for providing positive pressure breathing gas; a controller (carbon dioxide control loop **4**) in circuit communication with the ventilator; a carbon dioxide sensor **107**; and a logic (col. 8, lines 15-43) capable of increasing and decreasing the level of the positive pressure breathing gas based on the level of carbon dioxide detected to maintain open the airway of a patient (changing the frequency of ventilation changes the pressure of the breathing gas provided to the patient); wherein the logic compares the level of carbon dioxide to a threshold parameter (col. 8, line 20). Westenskow is silent with regards to the ventilator comprising a blower or the carbon dioxide sensor comprising an infrared light emitter and detector in circuit communication with the controller for detecting the level of carbon dioxide associated with the patient breathing interface.

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Younes teaches that it is known in the art to provide positive pressure breathable gas to a patient via ventilators comprising blowers (col. 1, lines 13-21).

Jaffe teaches a carbon dioxide sensor for use in respiratory device comprising an infrared light emitter **34** and detector **36**.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the carbon dioxide sensor of Jaffe in the device of Westenskow because capnometers utilizing infrared light provide a more accurate method of detecting carbon dioxide levels in the system. Furthermore, it would have been obvious to use any well known carbon dioxide sensor since Westenskow merely recites the use of a general carbon dioxide sensor. Moreover, it would have been obvious to use a ventilator comprising a blower since it is well known in the art to use blowers to provide positive pressure to a patient.

4. As to claims 25-28, the above combination teaches the use of fiber optic cables **106** (Jaffe); a carbon dioxide sensor within a housing accommodating the controller (gas metering unit of Westenskow); and the carbon dioxide sensor located in the patient breathing interface proximate to a vent of the patient breathing interface (Fig. 1 of Westenskow).

5. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Westenskow/Younes/Jaffe and in further view of US 3,921,628 to Smythe et al.

The above combination is silent with regards to the system having a monostable timer. Smythe teaches a monostable timer in a ventilation system (see col. 7, lines 60-

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64). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to add the monostable timer of Smythe to the device of Christopher/Jaffe because it is known to have a monostable timer in a ventilation system, as disclosed by Smythe, in order control the operation of the ventilator.

Allowable Subject Matter

6. Claims 1-21 are allowed.

7. The following is an examiner's statement of reasons for allowance:

The prior art of record fails to teach or render obvious a method of providing breathable gas to a patient by monitoring a carbon dioxide level, determining if the carbon dioxide level is above or below a threshold value, if the level is above the threshold value (which indicates exhalation), the breathing gas pressure provided to the patient is decreased; and if the level is below the threshold value (which indicates inhalation), the breathing gas pressure is increased.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Response to Arguments

8. Applicant's arguments with respect to claims 22-28 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Darwin P. Erezzo whose telephone number is (703) 605-0420. The examiner can normally be reached on M-F (8:30-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, McDermott or Shaver can be reached on (703)308-0858. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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GLENN K. DAWSON
PRIMARY EXAMINER